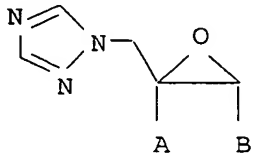
We claim:

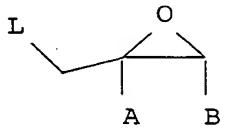
1. A process for the preparation of 1,2,4-triazol-1-ylmethyloxiranes of the formula I



I

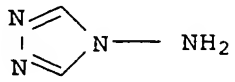
in which A and B are identical or different and, independently of one another, are C_1-C_4-alkyl, phenyl-C_1-C_2-alkyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl, tetrahydropyranyl, tetrahydrofuranyl, dioxanyl or phenyl, where the phenyl radical can carry one to three substituents chosen from the group: halogen, nitro, C_1-C_4-alkyl, C_1-C_4-alkyloxy, phenoxy, amino, C_1-C_2-haloalkyl or phenylsulfonyl, which comprises reacting

a) an oxirane of the formula II

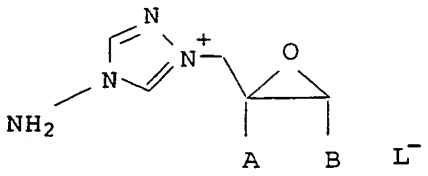


II

in which A and B have the meanings given above and L is a nucleophilically substitutable leaving group, with 4-amino-1,2,4-triazole of the formula III



III



IV

to give 4-amino-1,2,4-triazolium salts of the formula IV and

b) deaminating the 4-amino-1,2,4-triazolium salts IV with alkali metal nitrites and acid or organic nitrites to give 1,2,4-triazol-1-ylmethyloxiranes of the formula I.

2. A process as claimed in claim 1, wherein the reaction in stage a) is carried out in the presence of an organic solvent.

3. A process as claimed in claim 2, wherein alcohols, ketones, nitriles, esters, organic carbonates, nonaromatic and aromatic hydrocarbons, ethers, amides, dimethyl sulfoxide, sulfolane or mixtures thereof are used as organic solvent.

4. A process as claimed in either claim 2 or 3, wherein the organic solvent used is methanol, ethanol, butanols, isopropanol, pentanols, hexanols, octanols, decanols, methyl glycol, ethyl glycol, n-butyl glycol, acetone, methyl ethyl ketone, cyclohexanone, acetonitrile, propionitrile, ethyl acetate, butyl acetate, tetrahydrofuran, dimethoxyethane, dioxane, dimethylformamide, dimethylacetamide, N-methylpyrrolidone, tetramethylurea, dimethyl sulfoxide, sulfolane or mixtures thereof.

5. A process as claimed in claim 4, wherein n-butyl glycol, 2-ethylhexanol or mixtures thereof with toluene are used as organic solvent.

6. A process as claimed in any of claims 1 to 5, wherein the reaction in stage a) is carried out at temperatures of from 50 to 150°C.

7. A process as claimed in any of claims 1 to 6, wherein the reaction in stage a) is carried out in the presence of 0.01-5 mol% of a catalyst or 5-300 mol% of an auxiliary.

8. A process as claimed in claim 7, wherein quaternary ammonium salts, quaternary phosphonium salts, betaines are used as catalyst and/or nucleophilic anions and amines are used as auxiliaries.

9. A process as claimed in any of claims 7 to 8, wherein tetrabutylammonium chloride, 4-dimethylsulfonium phenoxide are used as catalyst and/or cyanides, iodides, fluorides,

DABCO, dimethylaminopyridine, dimethylcyclohexylamine, tributylamine, triethylamine or DBU are used as auxiliaries.

10. A process as claimed in any of claims 1 to 9, wherein the 4-aminotriazolium salts of the formula IV formed in stage a) are separated off from the reaction mixture by precipitation and/or crystallization.

11. A process as claimed in claim 10, wherein the precipitation and/or crystallization of the 4-aminotriazolinum salts of the formula IV is carried out at temperatures below 10°C.

12. A process as claimed in any of claims 1 to 11, wherein the 4-aminotriazolum salts of the formula IV formed in stage a) are extracted from the reaction mixture by continuous and/or discontinuous extraction.

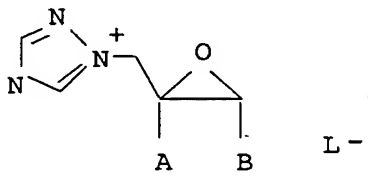
13. A process as claimed in claim 12, wherein the continuous and/or discontinuous extraction is carried out with water, optionally in the presence of a water-immiscible organic solvent.

14. A process as claimed in any of claims 1 to 13, wherein the deamination in stage b) is carried out in aqueous solution, water/THF, water/alcohols or water/NMP.

15. A process as claimed in any of claims 1 to 14, wherein the deamination in stage b) is carried out with organic nitrites in aqueous or organic solution or in aqueous/organic solution mixtures such as water/THF, water/alcohols, water/NMP.

16. The process as claimed in any of claims 14 or 15, wherein the deamination in stage b) is carried out at a temperature of from -10 to 60°C.

17. A 4-amino-1,2,4-triazolium salt of the formula IV



IV

in which A, B and L^- have the meanings given in claim 1.

18. A 4-amino-1,2,4-triazolium salt of the formula IV as claimed in claim 17, in which A and B are identical or different and are a phenyl radical substituted by halogen, C_1-C_4-alkyl or C_1-C_4-alkoxy.

19. A 4-amino-1,2,4-triazolium salt of the formula IV as claimed in claim 17, in which A is 4-fluorophenyl and B is 2-chlorophenyl.